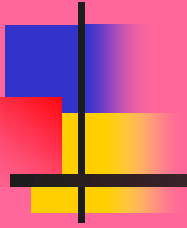
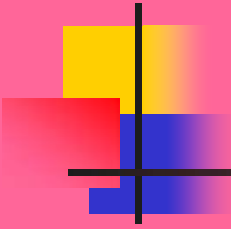


Reporting amino acids the requesting doctor



Dr Ruth Ayling
Consultant Chemical Pathologist
Derriford Hospital, Plymouth







Amino acid requests

| | <i>2002</i> | <i>2003</i> | <i>2004</i> | <i>2005</i> |
|----------------------|--------------------|--------------------|--------------------|--------------------|
| <i>Urine</i> | 68 | 57 | 70 | <i>(60)</i> |
| <i>Plasma</i> | 52 | 46 | 57 | <i>(50)</i> |



Issues for the requester

- appropriate testing
- reliable analyses
- correct and user-friendly interpretation
- relevant action



Appropriate requesting

A request for amino acid analysis should attempt to answer a question which the clinician has posed about the patient



Appropriate reporting

- adequate clinical information
- relevant guidelines



Reliable analyses

- laboratory issues
- other service aspects
 - cost, access



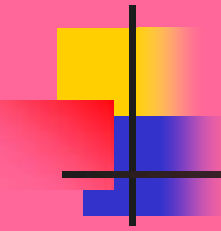
Resource aspects

- health economists
- laboratory manager



Interpretation

- correct
- user-friendly



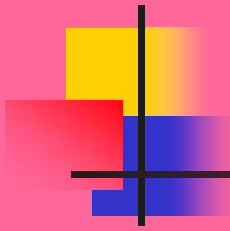
| | | | |
|---------------------|------|--------|-------------------|
| SHBG | 33.8 | nmol/L | (Ref = 40 - 120) |
| Free Androgen Index | 8.9 | | (Ref = 0.6 - 4.0) |

Please note:

New Roche SHBG method with new reference ranges
for SHBG and FAI w.e.f 04/07/04

The SHBG reference range stated is for females not on the
contraceptive pill.

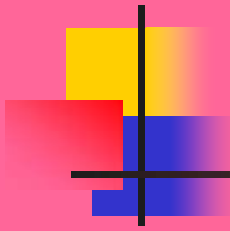
Causes of low SHBG values: raised androgens, hirsutism/acne,
PCO, Cushing's myxoedema and, probably the most important
factor, obesity.



PLASMA AMINO-ACID PROFILE

No evidence of a primary Amino-Acid Disorder.

The slight variation in glutamic acid, glutamine and cystine from normal is due to changes caused by delay in sample handling.



Organic acid profile by GC/MS shows a pattern of hepatic immaturity/dysfunction.

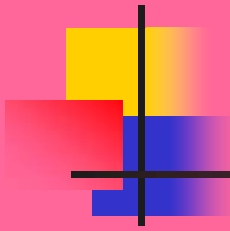
Amino acid profile : NORMAL

Providing the patient was receiving an adequate protein intake or was suitably stressed at the time these results eliminate the majority of amino acid disorders. If there is still a high index of suspicion please contact the laboratory to discuss further investigations.



Relevant action

- specialist laboratory
 - advice
- referring laboratory
 - liaison
- clinicians
 - management



September 04-September 05

77 amino acid analyses

- 2 abnormal
 - (i) raised tyrosine
 - (i) raised ornithine



Conclusions

requesting doctor

- pleased with
 - Nature of reports
 - Interaction with laboratory
- concerned that
 - tests may not always be appropriate
 - follow-up is sometimes omitted